CLAIMS:

1. A method for holding an object of interest in a field of view of a movable video camera, the object of interest being selected from a plurality of moving objects detected in the field of view, said method comprising the steps of:

receiving an indication of the object of interest;

predicting a future position of the object of interest based on a current position and movement parameters of the object of interest;

determining a future position of the movable camera based on said future position of the object of interest, said future position of the movable camera having the object of interest in the field of view; and

generating movement signals for the movable camera based on a difference between a current position of the movable camera and said future position of the movable camera.

2. The method of claim 1 wherein said movement parameters includes the parameters of velocity and acceleration of the object of interest.

3. The method of claim 1 wherein said step of generating includes the steps of:

determining a difference between said current position of the movable camera and said future position of the movable camera; and

creating control signals to move the movable camera said difference.

4. The method of claim 3 wherein said difference is determined in a display coordinate system used for representing objects in the field of view, and the method further comprises the step of:

translating said difference in said display coordinate system to a difference in a camera controller coordinate system; and

wherein said step of creating control signals includes the step of creating control signals based on said difference in said camera controller coordinate system.

5. A method for holding an object of interest selected by a user in a field of view of a movable camera, the movable camera producing a video signal representative of the field of view, said method comprising the steps of:

detecting moving objects in the video signal;

transmitting an indication of said detected moving objects and the video signal at a first time point;

receiving an indication of the selected object of interest at a current time point;

translating said indication of the selected object of interest from the video signal transmitted at said first time point to an object in the video signal at said current time point;

predicting a future position of said selected object of interest based on a current position and movement parameters of said selected object of interest;

determining a future position of the movable camera based on said future position of said selected object of interest; and

generating movement signals for the movable camera based on a difference between a current position of the movable camera and said future position of the movable camera.

6. The method of 5 wherein said step of translating further includes the steps of:

determining a difference between said first time point and said current time point; and

determining a current location of said selected object of interest at said current time point based on said received indication taken at said first time point and said difference between said first time point and said current time point.

7. The method of claim 5 wherein said movement parameters includes the parameters of velocity and acceleration of the object of interest.

8. The method of claim 5 wherein said step of generating includes the steps of:

determining a difference between said current position of the movable camera and said future position of the movable camera; and

creating control signals to move the movable camera said difference.

9. The method of claim 8 wherein said difference is determined in a display coordinate system used for representing objects in the field of view, and the method further comprises the step of:

translating said difference in said display coordinate system to a difference in a camera controller coordinate system; and

wherein said step of creating control signals includes the step of creating control signals based on said difference in said camera controller coordinate system.

10. The method of claim 6 further including the step of storing the video signal received between said first time point and said current time point.

11. The method of claim 10 wherein said step of determining a said current location of said selected object of interest includes the step of

determining a position of said selected object of interest at said first time point from said stored video signal;

mapping said position of said selected object of interest at said first time point to said current position.

12. A system for holding an object of interest in a field of view of a movable video camera, the object of interest being selected form a plurality of moving objects detected in the field of view, said system comprising:

a selector for selecting the object of interest;

means for predicting a future position of the object of interest and a coordinating future position of the movable video camera;

a movement coordinator for creating movement signals to move the movable video camera to said future position from a current position.

13. The system of claim 12 wherein said future position of the movable camera is in a display coordinate system used for representing objects in the field of view, and said movement coordinator includes a coordinate translation database storing a mapping of display coordinates to camera controller coordinates for translating said future position said movable camera in said display coordinate system to a future position in a camera controller coordinate system; and wherein said movement signals are created in said camera controller coordinate system.

14. A system for holding an object of interest selected by a user in a field of view of a movable camera, the movable camera producing a video signal representative of the field of view, said system comprising:

an object detector for detecting moving objects in the field of view of the video camera;

means for transmitting and receiving video information for transmitting the video signal and said detected moving objects and receiving an indication of the selected object of interest;

a translator for determining an object of interest at a current time point based on a video signal transmitted at a first time point and said indication of the selected object of interest received at said current time point;

means for predicting a future position of the object of interest and a coordinating future position of the movable video camera;

a movement coordinator for creating movement signals to move the movable video camera to said future position from a current position.

15. The system of claim 14 wherein said future position of the movable camera is in a display coordinate system used for representing objects in the field of view, and said movement coordinator includes a coordinate translation database storing a mapping of display coordinates to camera controller coordinates for translating said future position said movable camera in said display coordinate system to a future position in a camera controller coordinate system; and wherein said movement signals are created in said camera controller coordinate system.

16. The system of claim 14 wherein said translator further includes a video database for storing the video signal received between said first time point and said current time point .

17. A computer readable medium having stored thereon computer-executable instructions for holding an object of interest in a field of view of a movable video camera, the object of interest being selected from a plurality of moving objects detected in the field of view performing the steps comprising:

receiving an indication of the object of interest;

predicting a future position of the object of interest based on a current position and movement parameters of the object of interest;

determining a future position of the movable camera based on said future position of the object of interest, said future position of the movable camera having the object of interest in the field of view; and

generating movement signals for the movable camera based on a difference between a current position of the movable camera and said future position of the movable camera.

18. The computer readable medium of claim 17 wherein said movement parameters includes the parameters of velocity and acceleration of the object of interest.

19. The computer readable medium of claim 17 wherein said step of generating includes the steps of:

determining a difference between said current position of the movable camera and said future position of the movable camera; and

creating control signals to move the movable camera said difference.

20. The computer readable medium of claim 19 wherein said difference is determined in a display coordinate system used for representing objects in the field of view, and the method further comprises the step of:

translating said difference in said display coordinate system to a difference in a camera controller coordinate system; and

wherein said step of creating control signals includes the step of creating control signals based on said difference in said camera controller coordinate system.

21. A computer readable medium having stored thereon computer-executable instructions for holding an object of interest selected by a user in a field of view of a movable camera, the movable camera producing a video signal representative of the field of view performing the steps comprising:

detecting moving objects in the video signal;

transmitting an indication of said detected moving objects and the video signal at a first time point;

receiving an indication of the selected object of interest at a current time point;

translating said indication of the selected object of interest from the video signal transmitted at said first time point to an object in the video signal at said current time point;

predicting a future position of said selected object of interest based on a current position and movement parameters of said selected object of interest;

determining a future position of the movable camera based on said future position of said selected object of interest; and

generating movement signals for the movable camera based on a difference between a current position of the movable camera and said future position of the movable camera.

22. The method of 21 wherein said step of translating further includes the steps of:

determining a difference between said first time point and said current time point; and

determining a current location of said selected object of interest at said current time point based on said received indication taken at said first time point and said difference between said first time point and said current time point.

23. The computer readable medium of claim 21 wherein said movement parameters includes the parameters of velocity and acceleration of the object of interest.

24. The computer readable medium of claim 21 wherein said step of generating includes the steps of:

determining a difference between said current position of the movable camera and said future position of the movable camera; and

creating control signals to move the movable camera said difference.

25. The computer readable medium of claim 24 wherein said difference is determined in a display coordinate system used for representing objects in the field of view, and the method further comprises the step of:

translating said difference in said display coordinate system to a difference in a camera controller coordinate system; and

wherein said step of creating control signals includes the step of creating control signals based on said difference in said camera controller coordinate system.

26. The computer readable medium of claim 22 further including the step of storing the video signal received between said first time point and said current time point.

27. The computer readable medium of claim 26 wherein said step of determining a said current location of said selected object of interest includes the step of

determining a position of said selected object of interest at said first time point from said stored video signal;

mapping said position of said selected object of interest at said first time point to said current position.